

**FOR 3202: Society and Natural Resources**  
School of Forest Resources and Conservation, Spring, 2018

**Lectures:** Tuesday and Thursday 7<sup>th</sup> Period (1:55 – 2:45), McCarty A G186

**Discussions:** Students ALSO attend one discussion section each week:

1881 Tuesday 8<sup>th</sup> Period (3:00 – 3:50), NZH 0219 TA: Shane Feyers

6317 Wednesday 6<sup>th</sup> Period (12:50 – 1:40), McCarty B 1108, TA: Will Daeli

7626 Wednesday 7<sup>th</sup> Period (1:55 – 2:45), McCarty A 2186, TA: Melissa Hill

1901 distant students will meet on Canvas as a group Thursday, 4 – 4:50 CST / 5:00 – 5:50 pm EST, TA: Sara Komenda

Co-Instructors: **Martha Monroe**      [mcmunroe@ufl.edu](mailto:mcmunroe@ufl.edu)      NZ 347

Office Hours: Tuesday 8:30 – 10:00 am and by appointment

**Taylor Stein**      [tstein@ufl.edu](mailto:tstein@ufl.edu)      NZ 345

Office Hours: Mondays 12:00 – 1:00 pm and by appointment

**Description:**

Local-to-global and individual-to-institutional perspectives on natural resource values, sustainability, diversity, and social change help reveal potential paths for working within complex human and natural resource systems.

**Course Overview:**

Society and social systems play critical roles in natural resource planning and management. Public resources are managed under policies that are established by decision makers on behalf of the public. Private resources are managed to maximize landowner objectives, and these often reflect social constraints, such as market influences, neighbor tolerance, and public policies.

This course is a **Social and Behavioral Sciences** general education course and provides a foundation for understanding how society influences the management of natural resources. We use case studies from Florida, Alaska, and Australia to explore the course's fundamental concepts. The assignments in each case will help you practice communication skills that should help you address natural resource conflicts, work with citizens and staff, and access mass media and will build toward a culminating final assignment: to assess a case study for relevant opportunities to engage society in enhancing the sustainability of our natural resources.

The world is on the cusp of considerable change. Making good decisions in the context of the coming opportunities will require that we have the ability to consider different perspectives and needs, rights and responsibilities, economic development and livelihoods, community and personal well-being, and ecosystem continuity. This course will help give you some perspectives and skills for approaching these elements of sustainability.

### **Fundamental Concepts:**

- Conflict and Collaboration: Organizations, agencies, businesses, and individuals may have competing interests over natural resources. Collaboration among willing parties is a way to work through conflict, as well as develop innovative management strategies that one party could not do alone.
- Communication and Social Change: Increasing awareness, building understanding, supporting attitudes, building capacity and encouraging change depends on effective communication strategies.
- Sustainability: The future depends on our ability to make decisions that are socially just, economically viable, and environmentally sustainable. Resource managers and others can support progress by using systems thinking to assess situations and seeking opportunities to appropriately engage stakeholders.

### **Student Learning Outcomes:**

By the end of this course, students will be able to:

1. Know key themes, principles, and terminology related to society and natural resources.
  - a. Be able to correctly use terms, such as sustainability, systems thinking, collaboration, conflict management, governance, and land tenure to analyze natural resource issues.
2. Know theory and methodologies related to society and natural resources.
  - a. Describe how collaboration creates more acceptable decisions.
  - b. Explain how individuals and communities change norms and behaviors.
  - c. Describe major theories related to human behavior and sustainability such as Theory of Planned Behavior, Diffusion of Innovation, social marketing, values, and attitudes.
3. Identify, describe and explain social institutions, structures, and processes that guide natural resource decision-making.
  - a. Differentiate and describe the major natural resource agencies, organizations and decision-makers in the U.S.
  - b. Discuss and explain the issues and opportunities for natural resource management outside the U.S.
  - c. Describe current multilateral environmental agreements, agencies, and organizations that support efforts toward sustainability.
  - d. Explain how to effectively use news media to inform and persuade the public.
4. Analyze the processes of how individuals and organizations make personal and group decisions related to the management and use of natural resources.
  - a. Use systems thinking to understand natural resource conflicts, situations, and opportunities.
  - b. Evaluate stakeholder perspectives in the context of natural resource conflicts.
5. Assess and analyze ethical perspectives in individual and societal decisions related to the management and use of natural resources.
  - a. Explain the ethical principles related to sustainability and apply them to class cases.
6. Communicate knowledge, thoughts, and reasoning clearly and effectively.
  - a. Recognize and effectively use outreach tools that can help change behaviors.

**Texts and Materials:**

The course readings will be available electronically through the course reserves. Course reserves can be accessed through Canvas ([elearning@ufl.edu](mailto:elearning@ufl.edu)) or through the [library website \(ares.uflib.ufl.edu\)](http://ares.uflib.ufl.edu).

**Course Grading**

<b>Assignments/Exercises</b>	<b>Points</b>
Class Participation	45
7 Assignments	80
5 Quizzes	25
2 Exams	100
Final Essay Exam	50
<b>Total</b>	<b>300</b>

**Grading Scale**

<u>Grade</u>	<u>Points</u>	<u>Grade</u>	<u>Points</u>
A	279 - 300	C	219 - 231
A-	270 - 278	C-	210 - 218
B+	261 - 269	D+	201 - 209
B	249 - 260	D	189 - 200
B-	240 - 248	D-	180 - 188
C+	232 - 239	E	less than 179

UF Grading Policies: <http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>

**Course Assignments****Class Participation**

You must participate in all aspects of this course to get full credit. Specifically, participation will be graded on the following criteria:

1. Class attendance. Missed classes will not be counted against you if you provide an appropriate, relevant, written excuse and a completed worksheet (if discussion). If you know you can't attend one discussion, you may attend another for that week.
2. Preparation for class
3. Class conduct (e.g., arriving on time, contributing to class discussions, no disruptive behavior, and no irrelevant activity: e.g., sleeping, reading, texting, surfing).
4. Completion of discussion worksheets.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

**Quizzes**

The articles and chapters chosen for your reading packet provide a wealth of information that will supplement the information provided in lecture. You are expected to read and understand that information. To assist with your understanding, reading quizzes have been developed to ensure you identify relevant points from the readings and apply them to current issues. These are available on Canvas (under the quiz section) and their completion will be counted as an assignment. There will be 5 quizzes.

## Exams

This course has two in-class exams and a comprehensive online essay exam. The in-class exams will help you review topics covered throughout the semester and test your ability to apply those concepts to the various case studies. They will be composed of multiple choice and short answer questions. The comprehensive online exam will be essay questions that tie together the themes in the course.

## Assignments

You will be responsible for seven assignments that will facilitate your learning of the concepts, skills, and strategies. Instructors will provide specific details for each assignment. All written assignments will be submitted to the Canvas website (except 7) and be subject to Turnitin.

	Assignment Points
1. Systems diagram	10
2. Blog Post	10
3. News Release	10
4. Case Stakeholders	10
5. Case Ethics and Governance	10
6. Case Economics	10
7. Case Poster	20

**Assignments Total 80**

Unless otherwise explained, all assignments should be typed with 12 point font, double-spaced, and submitted through the course website in Canvas (<http://lss.at.ufl.edu>). Remember to put your name on your paper and name the file with your last name and assignment number (e.g., Smith Assign1.doc) before you upload it. Each assignment must be submitted prior to the period it is due. For each unexcused day a paper is late, 5% will be deducted from the score. Grades and comments will be posted on the Canvas Site.

A brief description of each assignment is below. More detail will be given in discussion and on Canvas.

1. **Systems Diagram** – Using a case study from the Tipping Point reading, describe the specific natural resource scenario and the socio-ecological system that would also encompass the relevant and impacted actors. At both the short and longer-term scales, identify the key variables, their relationships to one another, and how human activities complicate the system. Use worksheet from Week 3 as a model.
2. **Blog Post** – You will write a 2-paragraph blog post which incorporates at least two elements of social marketing in order to persuade your audience to take action. This blog post will be written from the perspective of a stakeholder group from either the wildfire, prescribed fire, or reindeer removal cases presented in class. You will also submit a short form that describes your employer, your audience, and the social marketing tools you chose to use.
3. **News Release** – You will write a draft news release, edit at least one other students' draft news release online, and submit a final, well-written, properly formatted news release featuring a news-worthy event from the same stakeholder group as your blog post.

**Assignments 4-7 will all revolve around one case study that you will select from a list we provide. You will use the concepts already introduced in the course (systems, behavior change, communication, stakeholders, collaboration) and several new concepts (land tenure, power,**

**governance, ethics, economics) to complete three worksheet-like assignments and one poster.**

4. **Case Stakeholders** -- Using your case, define the major stakeholders, their interests, and their positions that define the problem and solution.
5. **Case Ethics and Governance** – Using your case, find an ethical element and describe the relevant governance considerations as decisions are made about the problem and solution. Also identify an international policy that affects this case.
6. **Case Economics** – Using your case problem, describe the costs using traditional economics, and identify an externality that is internalized in the potential solution. Use ecological economics to describe the cost of the solution.
7. **Case Poster** – The final activity for the case study will result in poster that summarizes the key concepts about sustainability in the context of your case: ethics and justice, governance and policy, economics and externalities, and the environmental problem. Focus on the sustainability of the solution through these factors. Your poster will be attractive and well formatted, and provides enough detail that readers can see how these components contribute to sustainability. Your poster is due in the Week 14 discussion period. You will review others' posters to glean information about key aspects of these cases that will be used to answer questions on the online essay exam about sustainability.

### **Special Notes**

1. Individuals who miss classes are expected to make arrangements with the professor(s) teaching that section of the class, your TA, and other students in the class to get lecture materials.
2. Class participation in discussion is essential, and relevant opinions are valued no matter what perspective you have. The knowledge and skills you are expected to learn are achieved not simply learned through memorizing class notes. Actively taking part in class activities, asking questions, responding to instructors' questions, participating in class discussions, and generally being present in all your classes will improve your ability to learn the information presented.
3. Turn off cell phones and bury them away from temptation, and only use laptops for taking notes. E-mailing, texting, or surfing websites during class is not permitted. Instructors will require all laptops to be closed if students are found misusing laptops during lecture or discussion.
4. **Remember, do not plagiarize!** Academic honesty dictates that we credit information to the original source through citations or quotes. Copying information or key phrases from other documents (whether they are Web sites, newspaper articles, journal articles, lectures, etc.) without documenting the source is plagiarism and a violation of the Student Honor Code. If documented, it will result in a zero for that assignment and in submission of the evidence to the UF authorities. Please take special caution when using or summarizing other sources to be sure your words are your own. Consult the UF tutorial if you wish to have a better handle on plagiarism:  
<http://www.uflib.ufl.edu/msl/07b/students.html>

## Other Information

### Academic Honesty

In 1995 the UF student body enacted an [honor code](#) and voluntarily committed itself to the highest standards of honesty and integrity. When students enroll at the university, they commit themselves to the standard drafted and enacted by students.

In adopting this honor code, the students of the University of Florida recognize that academic honesty and integrity are fundamental values of the university community. Students who enroll at the university commit to holding themselves and their peers to the high standard of honor required by the honor code. Any individual who becomes aware of a violation of the honor code is bound by honor to take corrective action. The quality of a University of Florida education is dependent upon community acceptance and enforcement of the honor code.

**The Honor Pledge: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code.**

On all work submitted for credit by students at the university, the following pledge is either required or implied: **"On my honor, I have neither given nor received unauthorized aid in doing this assignment."**

The university requires all members of its community to be honest in all endeavors. A fundamental principle is that the whole process of learning and pursuit of knowledge is diminished by cheating, plagiarism and other acts of academic dishonesty. In addition, every dishonest act in the academic environment affects other students adversely, from the skewing of the grading curve to giving unfair advantage for honors or for professional or graduate school admission. Therefore, the university will take severe action against dishonest students. Similarly, measures will be taken against faculty, staff and administrators who practice dishonest or demeaning behavior.

Students should report any condition that facilitates dishonesty to the instructor, department chair, college dean or Student Honor Court. (*Source: 2010-2011 Undergraduate Catalog*)

It is assumed all work will be completed independently. There are no group assignments in this course, but there are in-class group activities.

This policy will be vigorously upheld at all times in this course.

### Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

### Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere

with their academic performance.

### Health and Wellness

- U Matter, We Care: If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352 392-1575 so that a team member can reach out to the student.
- Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies
- Sexual Assault Recovery Services (SARS)
- Student Health Care Center, 392-1161.
- University Police Department, 392-1111 (or 9-1-1 for emergencies). <http://www.police.ufl.edu/>

### Academic Resources

- E-learning technical support, 352-392-4357 (select option 2) or e-mail to [Learningsupport@ufl.edu](mailto:Learningsupport@ufl.edu). <https://lss.at.ufl.edu/help.shtml>.
- Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling <http://www.crc.ufl.edu/>
- Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <http://teachingcenter.ufl.edu/>
- Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. <http://writing.ufl.edu/writing-studio/>
- Student Complaints Campus: [https://www.dso.ufl.edu/documents/UF\\_Complaints\\_policy.pdf](https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf)
- On-Line Students Complaints: <http://www.distance.ufl.edu/student-complaintprocess>

### Students with Disabilities

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

### Accepting Diversity

All students have the right to free expression and to study in a supportive atmosphere conducive to academic success. Comments or actions that demean a student for different ideas, customs, habits, or other differences (such as ethnicity, age, or gender) are not helpful nor promote open dialogue.

### Course Evaluations

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

**FOR 3202: Society and Natural Resources  
Course Schedule and Readings**

Citations refer to the assigned readings for that day and are found in the [online course reserves](#) and on Canvas.

Dates	Topic
<b>Week 1</b>	
Jan. 9	1a. Orientation to course; introductions
Discussion	Student introductions, potential careers, and personal connections to society & natural resources
Jan. 11	1b: Natural resource management over time <u>Reading:</u> 1) <i>Jacobson, S.K., and M.D. McDuff. 1998. Training idiot savants: The lack of human dimensions in conservation biology. Conservation Biology, 12(2): 263-267.</i>
<b>Week 2</b>	
Jan. 16	2a: Reindeer in Alaska <u>Reading:</u> 1) <i>Reindeer Removal Reading, from Ethics of Sustainability Instructor's Guide</i>
Discussion	Reindeer removal discussion
Jan. 18	2b: Attitudes and values and sense of place <u>Reading:</u> 1) <i>Manfredo, Vaske, and Decker. Human dimensions of wildlife management. Chapter 2, pages 17-31.</i>
<b>Week 3</b>	
Jan. 23	3a: Thinking in Systems – Guest Speaker Dr. Matt Cohen <u>Reading:</u> 1) <i>Marten, G., Brooks, S., Suutair, A. 2005. "Environmental tipping points: A new slant on strategic environmentalism. World Watch 18(6): 10-14.</i>
Discussion	Systems thinking exercise, Intro to Assignment 1
Jan.25	3b: Diffusion of Innovation and Theory of Planned Behavior - <b>Quiz 1 Due</b> <u>Reading:</u> 1) <i>Muth, R. M. and Hendee, J. C. 1980. "Technology transfer and human behavior," Journal of Forestry. 78(3): 141-144.</i>
<b>Week 4</b>	
Jan. 30	4a: FireWise: Intro to issue and communication/information strategies <u>Reading:</u>

- 1) Randall, Hermansen-Baez, Acomb: *Fire in the Wildland-Urban Interface: Reducing Wildfire Risk while Achieving Other Landscaping Goals*, Circ 1478: <http://edis.ifas.ufl.edu/pdf/files/FR/FR16200.pdf>.
- 2) Shands, W.E. 1991. *Problems and prospects at the urban-forest interface*. *Journal of Forestry*. 89(6): 23-26.
- 3) Monroe, M. C. and K. C. Nelson. 2004. *The value of assessing public perceptions: Wildland fire and defensible space*. *Applied Env. Ed. and Communication*. 3:109-117.

Discussion Critique of wildfire brochures to apply theories; **Assignment 1 Due**

Feb. 1 4b: Social marketing to change behavior

Reading:

- 1) McKenzie-Mohr, *Quick Reference: Community-Based Social Marketing Handout*.

**Week 5**

Feb. 6 5a: Fisheries management with a human dimensions twist – Guest Speaker Dr. Kai Lorenzen

Reading:

- 1) Ostrom, Elinor. "Tragedy of the Commons." *The New Palgrave Dictionary of Economics*. Second Edition. Eds. Steven N. Durlauf and Lawrence E. Blume. Palgrave Macmillan, 2008.

Discussion Social Marketing Blog and News release Introduction (Assignments 2 and 3)

Reading:

- 1) Jacobson, S.K. 2009. *News releases. Communication Skills for Conservation Professionals*. Washington DC: Island Press, pages 265-271.

Feb. 8 5b: Conflict and collaboration - **Quiz 2 Due**

Reading:

- 1) Brunson, M. 2002. *Experiences in ecosystem management: Collaborative stewardship: Views from both sides*. Pp. 240-244. In: *Ecosystem Management*. Washington D.C.: Island Press.
- 2) Swirko, C. 2014. *Homeowners vs. trail users*. *Gainesville Sun* October 27. Pp. 1A, 5A.
- 3) *Island Field Neighbors*. 2014. *Letter to the Editor: Balance recreational desires, property rights with preserve*. November 22.
- 4) *Gainesville Sun Editor*. 2014. *Editorial: Keep the trail open*. *Gainesville Sun*, October 24.

**Week 6**

Feb. 13 6a: Multi-stakeholder processes and public engagement

Reading:

- 1) Hemmati, M. 2001. *Designing the process – The key elements for developing an MSP* In H. Brouwer, J. Woodhill, M. Hemmati, K. Verhoosel, & S. Vugt (Eds), *The MSP Guide* (pp 26-43). Retrieved from <http://www.mspguide.org>
- 2) Kaplan S and Kaplan R, 2009. *Creating a larger role for environmental psychology: The Reasonable Person Model as an integrative framework*. *J of Envir Psychology*. 29: 329-339

Discussion Nominal Group Technique **Assignment 2, Social Marketing Blog Post due**

Feb. 15 6b: Understanding conflict

Reading:

- 1) Glaser, T. 2007. *Book Summary of Getting to Yes: Negotiating Agreement Without Giving In* by Roger Fisher and William Ury.
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**Week 7**

Feb. 20 7a. Collaboration

Reading:

- 1) Steiner, F. 2008. *Identifying issues and establishing planning goals. Pp. 27 – 48. In: The Living Landscape. Washington D.C.: Island Press.*

Discussion Introduce cases, poster assignment, and assignment 4

Feb. 22 7b: Assessment - **Quiz 3 Due...includes week 8a readings - Assignment 3, News Release DRAFT due**

Reading:

- 1) Jacobson, S. K., M. C. Monroe, and S. Marynowski. 2001. *Fire at the Wildland Interface: The influence of experience and mass media on public knowledge, attitudes, and behavioral intentions. Wildlife Society Bulletin. 29(3): 929-937.*
  - 2) Monroe, M. C. and K. C. Nelson. 2004. *The value of assessing public perceptions: Wildland fire and defensible space. Applied Env. Ed. and Communication. 3:109-117.*
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**Week 8**

Feb. 27 8a. Gender and natural resource management – Guest Speaker Dr. Alison Adams

Reading:

- 1) WWF UK. (2012) *Natural Resource Management and the Importance of Gender.*

Discussion Gender and audience assessment worksheet – **Assignment 3 FINAL Due**

**Mar. 1 8b: EXAM 1**

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March 6,8 No Classes - Spring Break

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**Week 9**

Mar. 13 9a: International policies and governance

Reading:

- 1) Steiner, Andrej, Henrieta Martonakova & Zuzana Guziova. 2003. *Environmental Governance Sourcebook: Challenges, Laws, Instruments. UNDP: Bratislava, Slovak Republic. pgs 15-18 and 85-99.*

Discussion Review Assignment 3, policy discussion for poster project

Mar. 15 9b: Ethics and Justice. **Assignment 4 due FRIDAY**

Reading:

- 1) Jennings, V., Yun, J., & Larson, L. (2016). *Finding Common Ground: Environmental Ethics, Social Justice, and a Sustainable Path for Nature-Based Health Promotion. Healthcare*, 4(3), 61.
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**Week 10**

Mar. 20 10a: Co-management of UluruKata Tjuta National Park, Australia

Reading:

- 1) Parks Australia. 2015. *Fact Sheet: UluruKata Tjuta National Park*.  
<https://www.environment.gov.au/system/files/pages/d285fa76-222b-4531-8914-964c55851332/files/uluru-factsheet.pdf>.
- 2) Parks Australia. 2015. *Fact Sheet: Uluru-Kata Tjuta National Park World Heritage*.  
<https://www.environment.gov.au/system/files/resources/364eefe0-1b87-4209-8b3a-e45eae4490df/files/uktnp-a4factsheet-worldheritage-small.pdf>
- 3) Marks, Kathy. 2015. *Thirty years on from the Ayers Rock handback intercultural strains still persist. The Sydney Morning Herald*. October 24, 2015.

Discussion Introduce Assignment 5.

Mar. 22 10b: Co-management of UluruKata Tjuta National Park, Australia

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**Week 11**

Mar. 27 11a: Climate Change

Reading:

- 1) Council, N. R. (2012). *Climate Change: Evidence, Impacts, and Choices: Set of 2 Booklets, with DVD*. National Academies Press
- 2) Somerville, R. C. J., & Hassol, S. J. (2011). *Communicating the science of climate change. Physics Today*, 64(10), 48–53.

Discussion Climate Change exercise - **Assignment 5 Due**

Mar. 29 11b: Communication Challenges. **Quiz 4 Due**

Reading:

- 1) Monroe. *Addressing misconceptions about wildland-urban interface issues. Florida Cooperative Extension Service Fact Sheet, FOR 108*. University of Florida  
<http://edis.ifas.ufl.edu/pdf/FR/FR15500.pdf>
  - 2) Kahan, D. 2010. *Fixing the communications failure. Nature*, 463: 296-297.
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**Week 12**

Apr. 3 12a: Traditional and Environmental Economics

Reading:

- 1) Daly, H. 2008. *Economics blind spot is a disaster for the planet. New Scientist* 2648: 46-7.
- 2) Jackson, T. 2008. *Why politicians dare not limit economic growth. New Scientist. Issues* 2678, Oct 16, 2008. Pages 42-43.

Discussion Economics and Externalities, Introduce assignment 6

Apr. 5 12b: Woody Biomass

Reading:

1) Langholtz, M., D. R. Carter, and R. Schroeder. 2007. *Wood to Energy: Community Economic Profile: Florida*. <http://edis.ifas.ufl.edu/fr218>.

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**Week 13**

Apr. 10 13a: Ecological Economics

Discussion What makes a good poster? Intro to Assignment 7. **Assignment 6 due**

Apr. 12 13b: Introduction to Sustainability

Reading:

1) De Young, R., and S. Kaplan. 1988. *On averting the tragedy of the commons*. *Environmental Management*, 12(3): 273-283.

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**Week 14**

Apr. 17 14a: Sustainability and Natural Resource Management.

Reading:

1) Beddoe, R., R. Costanza, et al. 2009. *Overcoming systemic roadblocks to sustainability: The evolutionary redesign of worldviews, institutions, and technologies*. *PNAS*. 106 (8): 2483-2489

Discussion Poster Discussion – **Assignment 7 Poster Due**

Apr. 19 14b: Building Partnerships, Course Summary, Wrap Up - **Quiz 5 Due**

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**Week 15**

Apr. 24 **15a: No Class – Online Essay Exam Due by Wednesday in Canvas**

Discussion Review for Exam 2

**May 2 Exam 2 in class - Wednesday, May 2 from 12:30 – 2: 30 in McCarty A G186**